

## **Historic, Archive Document**

Do not assume content reflects current scientific knowledge, policies, or practices.



a S D 11  
R23



United States  
Department of  
Agriculture

**Forest Service**

Tongass  
National  
Forest  
R10-MB-105

June 1990



# Tongass National Forest

## Cooperative Fisheries Planning Status Report

(ANILCA (P.L. 96-487) SEC. 507-B)

DRAFT







United States  
Department of  
Agriculture

Forest  
Service

Alaska Region

P.O. Box 21628  
Juneau, AK 99802-1628

Reply to: 2620

Date: JUN 1 1990

Dear Reader:

The enclosed document titled "Tongass National Forest Cooperative Fisheries Planning Status Report" is provided for your information. This report is required by Public Law 96-487, The Alaska National Interest Lands Conservation Act (ANILCA) to be submitted to Congress with each revision of the Tongass Land Management Plan (TLMP).

This report summarizes the hatchery and aquaculture projects implemented in Southeast Alaska during the period 1980-1989. This report also includes a brief overview of projects which may be implemented during the next ten year period. The fisheries planning document titled "Tongass National Forest Cooperative Fisheries Enhancement Planning" is included as an enclosure to this report.

Sincerely,

for MICHAEL A. BARTON  
Regional Forester

Enclosures



Caring for the Land and Serving People

FS-6200-28 (7-82)



TONGASS NATIONAL FOREST  
COOPERATIVE FISHERIES PLANNING STATUS REPORT  
(ANILCA (P.L. 96-487) SEC. 507-B)

## INTRODUCTION

Located along the eastern rim of the fisheries rich Gulf of Alaska, the Tongass National Forest annually produces fishery resources that are vital to local and regional economies of the State. Fishing in Southeast Alaska is classified into the three major categories of subsistence fishing, sportfishing, and commercial fishing. Residents of Southeast Alaska are heavily dependent on fishing and fish for employment, income, recreation, and subsistence food.

A survey of subsistence use during 1987 indicated that approximately 1.2 million pounds of salmon were harvested for subsistence use in Southeast Alaska (Fig. 1). Approximately 23 percent of the salmon used for subsistence purposes were taken from the commercial catch. These fish are included, in this report, in the total catch and ex-vessel values of the commercial fisheries.

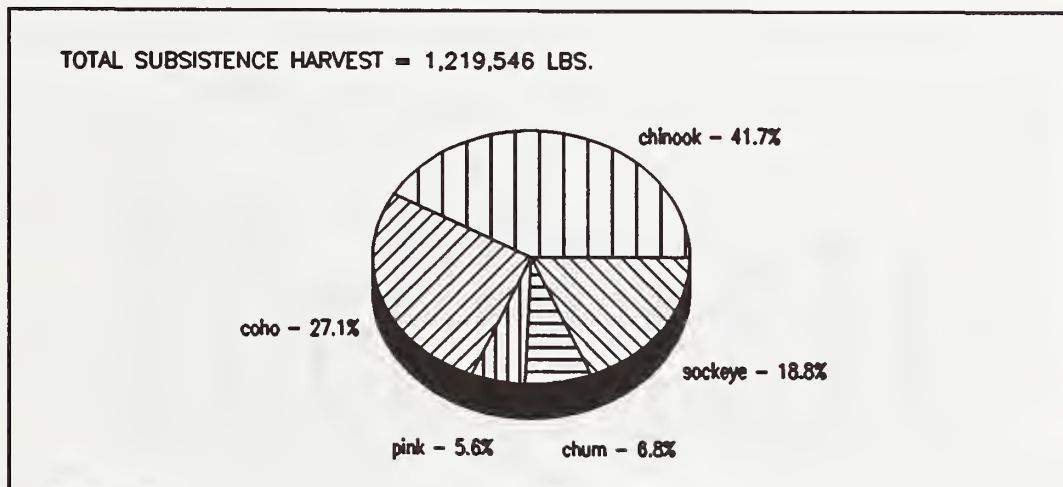


Figure 1. Pounds of subsistence harvest by species for Southeast Alaska, during 1987.

Annually, about 80 percent of total United States commercial salmon harvest is landed in Alaska. From 1980 to 1989, an average of 29 percent of the salmon harvested in Alaska were landed in waters adjacent to the Tongass National Forest, resulting in an average annual yield of 150 million pounds of salmon (Fig. 2) with an average ex-vessel value of 85 million dollars (Fig. 3). Southeast Alaska's commercial fishing industry annually provides about 4600 (Table 1) jobs resulting in a total earnings of nearly \$100 million.



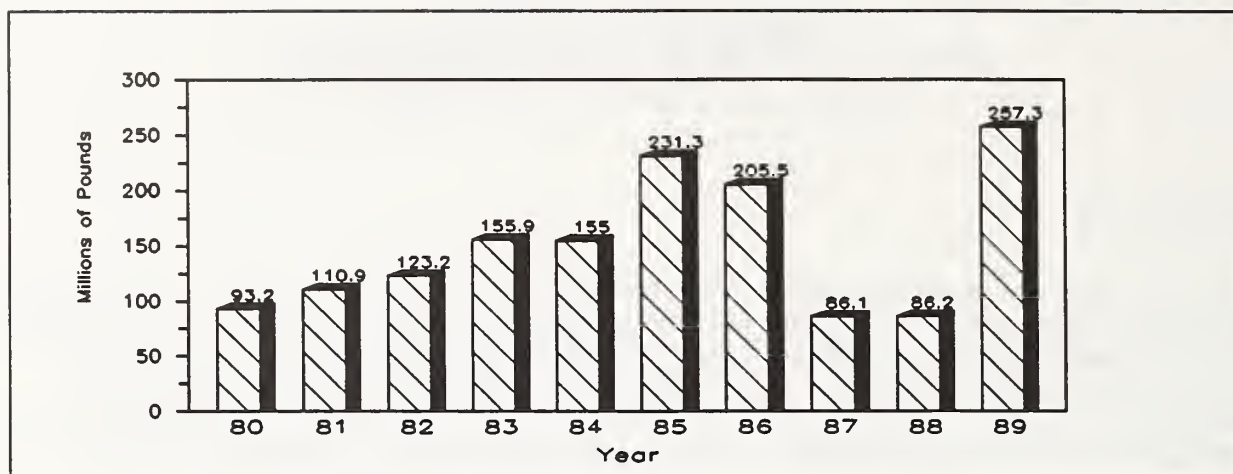


Figure 2. Commercial harvest of salmon, 1980-1989 in waters on or adjacent to the Tongass National Forest. Ten year average harvest is 150 million pounds of salmon.

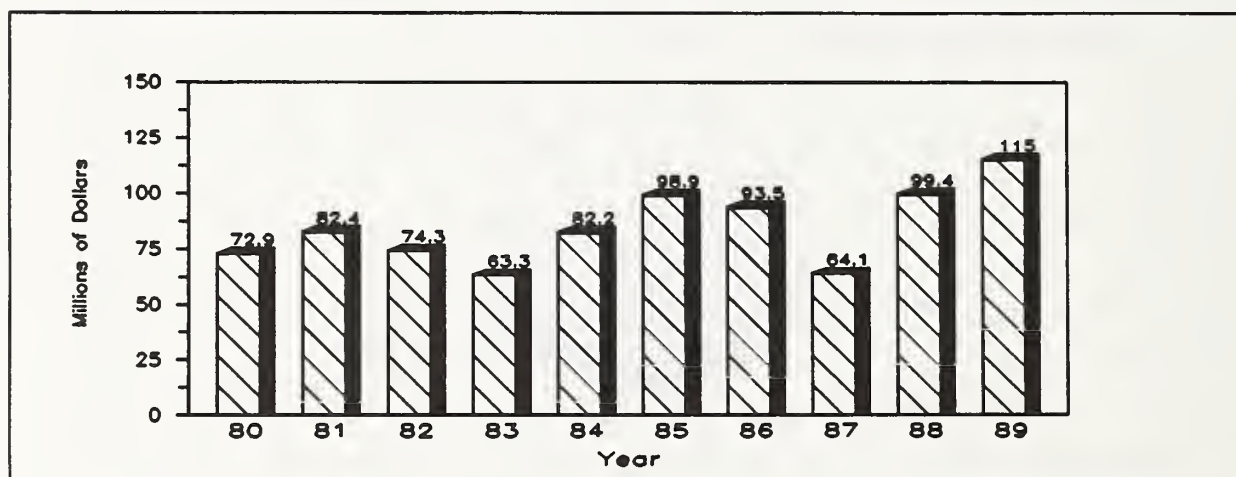


Figure 3. Ex-vessel values of salmon commercially harvested from waters on or adjacent to the Tongass National Forest. The average annual value from 1980 - 1989 is \$85 million. Dollar amounts are adjusted to 1985 dollar values.



Table 1. Annual Employment Attributed to the Commercial Fishing Industry in Southeast Alaska

Year	Total employment (Jobs)
1980	4,895
1981	4,554
1982	4,642
1983	4,427
1984	4,421
1985	4,940
1986	4,800
1987	4,430
1988	4,665
1989	NA
Yearly average	4,642

Statewide sport fishing demand, as indicated by license sales, has increased steadily since 1978. Sales increased from 195,231 in 1978 to 322,934 in 1988. This represents a 65 percent increase over the past 10 years. During 1984 over 59,000 anglers fished in Southeast Alaska. (1984 records of numbers of anglers fishing by region are the earliest available for the decade.) In 1988 over 80,000 recreational anglers fished in Southeast Alaska.

Public Law 96-487, Dec. 2, 1980, the Alaska National Interest Lands Conservation Act (ANILCA), recognizes the importance of Southeast Alaska's fishery by giving the Secretary of Agriculture direction for planning of fisheries enhancement. Sections 507 (a) and (b) state:

(a) The Secretary of Agriculture is directed to implement a cooperative planning process for the enhancement of fisheries resources through fish hatchery and aquaculture facilities and activities in the Tongass National Forest. Participation in this process shall include but not be limited to the State of Alaska and appropriate nonprofit aquaculture corporations. The Secretary may contract with private, nonprofit associations for services in such planning.

(b) Each subsequent revision of National Forest management plans under the Forest and Rangeland Renewable Resources Planning Act shall contain a report on the status of the planning process undertaken under this paragraph, including, but not limited to, a description of current hatchery and aquaculture projects, an analysis of the success of these projects, and a prioritized list of projects anticipated for the duration of the management plan. The report shall be submitted by the Secretary to the Congress with recommendations for any legislative action which the Secretary may deem necessary to implement the proposed hatchery and

aquaculture projects.

The following review is presented to meet the requirement of ANILCA Section 507b.

#### PLANNING PROCESS STATUS

In 1984 a procedure for planning cooperative enhancement on the Tongass National Forest was developed, documented and approved by the Forest Service, the Alaska Department of Fish and Game, the Northern Southeast Regional Aquaculture Association, and the Southern Southeast Regional Aquaculture Association. This document (enclosed) identifies the process to be used by the cooperating Agencies and Organizations in their fisheries enhancement planning efforts.

#### HATCHERY PROGRAM SUMMARY

During the past 10 years hatcheries, both State owned and private nonprofit (PNP), have contributed significantly to fisheries enhancement in Southeast Alaska. There are currently 19 hatcheries in operation in Southeast Alaska (Table 2). Five hatcheries are owned by the State and operated by the Fisheries Rehabilitation, Enhancement, and Development (FRED) Division of the Alaska Department of Fish and Game. One hatchery is owned by the City of Ketchikan and operated by FRED Division. The remaining thirteen hatcheries are owned and operated by private nonprofit (PNP) corporations. FRED Division has regulatory authority over all hatcheries.

---

Table 2.                      Number of Hatcheries in Southeast Alaska

---

<u>Operator</u>	<u>Year</u>	
	1980	1989
Alaska Department of Fish and Game	6	5
Private Non-Profit	6	14
Total	12	19

---

All of the hatcheries are managed to enhance and sustain Alaskan fisheries through the development and application of technologies in supplemental production and natural stock rehabilitation. The purpose of these hatcheries is, by State law, to contribute fish to the common property fishery, although State law allows private nonprofit hatcheries to harvest a portion of hatchery returns to cover costs of operations.

Hatchery juvenile salmon releases have increased significantly since 1980 (Figure 4). Releases in 1980 totaled approximately 20 million juvenile salmonids. In 1989 over 267 million juveniles were released to contribute, as adults, to the common property fishery. This increase represents a 12 fold increase, over 10 years.

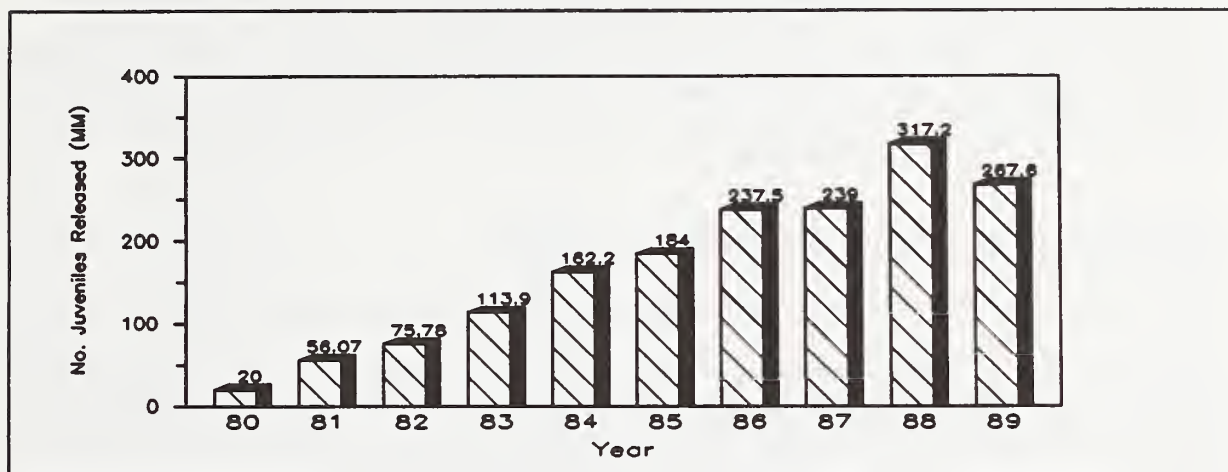


Figure 4. Total number (in millions) of juvenile salmon released from State and private nonprofit hatcheries from 1980 through 1989.

From 1980 through 1989 the increase of juvenile salmonids released resulted in an approximate 25 fold increase in the number of hatchery planted salmon which were commercially harvested. Commercial harvest of hatchery planted salmon increased from a 1980 low of 57,000 fish to a 1986 high of 1,765,000 fish. The 1989 commercial harvest of hatchery stocked salmon totaled 1,504,000 fish (Figure 5). Harvest numbers may fluctuate between years because of variables such as high seas interception from foreign fishing fleets and biological factors effecting ocean survival rates.

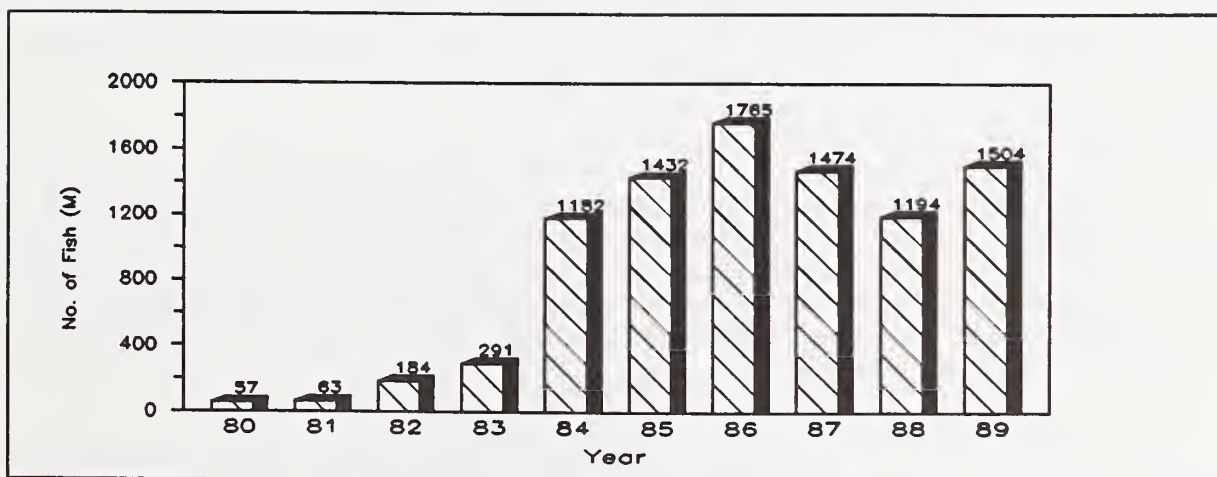


Figure 5. Annual commercial harvest of hatchery stocked salmon.



In addition to providing direct benefits to fisheries, hatcheries also provide seed stocks of salmon which grow into natural runs of salmon. Many of the Forest Service cooperative habitat enhancement projects depend on the planting of juvenile salmon from hatcheries, to seed new or improved habitats and ensure early establishment of runs of adult salmon. Without these stockings (termed bioenhancement) strong returns of adult salmon would be delayed for several salmon life cycles, resulting in significant reduction in total production during the life of the project. The FRED Division has been the lead agency responsible for bioenhancement of habitat enhancement projects on the Tongass National Forest. Budgets for bioenhancement have recently decreased because of decreasing State oil revenues. The future of this program is uncertain as State budgets continue to diminish.

#### AQUACULTURE (FISH HABITAT ENHANCEMENT) PROGRAM

##### **Tongass National Forest Cooperative Habitat Enhancement Activities**

During the last decade increased emphasis has been placed on the enhancement of fish habitat on the Tongass National Forest. Since 1980 the USDA Forest Service has invested approximately \$11.3 million<sup>1</sup> in the fisheries program resulting in 104 fisheries habitat enhancement projects on the Tongass National Forest (Table 3). An additional \$3.3 million was contributed by cooperators in the enhancement program. At full potential production these projects are expected to contribute 11.5 million pounds of salmon annually to the harvest in Southeast Alaska. The annual value of this potential harvest is estimated to be \$7,039,600. Return on investment averages about 4:1 for the overall fish habitat enhancement program on the Tongass.

The majority of the fish habitat enhancement projects implemented on the Tongass National Forest are cooperative projects involving multiple agencies and organizations. The costs of the projects are shared in a variety of ways which vary project by project depending on such factors as: budget levels and priorities, availability of personnel and equipment, fish brood stock availability at various hatcheries, and proximity of other projects to the proposed project location. Coordination and commitment is necessary at all levels of all agencies and organizations participating in the projects, to ensure success of the projects and contribute to the continued production and health of the salmon stocks in Southeast Alaska.

##### **Monitoring**

The anticipated salmon production from fish habitat enhancement projects on the Tongass National Forest is calculated based on site specific habitat conditions and an analysis of limiting factors for salmon production. The test for these calculated habitat production estimates consists of monitoring conducted on individual projects and the subsequent feedback of the monitoring results into the project planning process.

<sup>1</sup>/ Dollar amount represents total fisheries program investment. Project construction costs, reflected by Table 3, are included.

**Table 3. Tongass National Forest Cooperative Fisheries Enhancement  
Projects Completed During 1980-89**

Enhancement activity (No. of projects) <sup>1</sup>	Estimated production of fish <sup>2</sup> (M lb/yr)	Estimated ex-vessel value <sup>3</sup> (M \$/yr)	Cost <sup>5</sup>	
			Federal <sup>4</sup> (M \$)	Other <sup>6</sup> (M \$)
Fishway (26)	3,861.9	2,355.8	3,353.8	205.0
Falls Modification(5)	63.5	38.7	92.0	0.0
Spawning Channels (5)	329.4	200.9	365.5	85.0
Debris Removal (10)	76.0	46.4	19.0	0.0
Lake Fertilization (5)	4,551.0	2,776.1	1,200.7	1,557.0
Lake Stocking (8)	1,242.0	757.6	521.1	1,170.3
Stream Stocking (18) <sup>7</sup>	484.7	295.7	153.6	223.0
Rearing Pond (7)	16.3	9.9	86.6	0.0
Incubation Boxes (3)	833.9	508.7	53.0	105.2
Large Wood Debris Management (15)	81.6	49.8	564.6	30.0
Fish Weir (3)	NA	NA	0.0	NA
Total (104)	11,540.7	7,039.6	6,409.9	3,375.5

NA = Estimates not available

<sup>1</sup>The project totals represent the number of activities completed at different locations. Repetitive annual investments at the same site (i.e., fertilizer applied to each lake annually) are not shown, although the costs of the repetitive treatments have been included in the cost totals.

<sup>2</sup>Estimated salmon production is based on full utilization of habitat capability. The time it will take to reach full production varies with the species, application of bioenhancement techniques and fisheries management strategies regulating the fish stocks returning to the projects. Total production is calculated to represent the fish available for subsistence, sport and commercial harvest.

<sup>3</sup>Ex-vessel values are calculated based on the gross receipts to commercial fishers and are derived from Alaska Catch and Production Commercial Fisheries Statistics, Statistical Leaflet Series; 1980-88 and FINFISH Report to the Board of Fisheries, Regional Information Report No. 1J90-02, Alaska Department of Fish and Game, P.O. Box 3-2000, Juneau, AK 99802.

<sup>4</sup>Construction funds only. Alaska Department of Fish and Game salmon broodstock development costs associated with some fishway projects were not available.

<sup>5</sup>Costs shown in the table are direct project costs (i.e. construction) and do not include indirect costs such as program planning.

<sup>6</sup> Combined investments of the Alaska Department of Fish and Game and the Regional Aquaculture Associations. Cooperative investment information for the majority of the projects involving these agencies was not available.

<sup>7</sup> For years 1988 and 1989, salmon fry were not included in the lake stocking or stream stocking activity of "Estimated Production" and "Ex-vessel Value". Production and values resulting from the stockings were added to the "Estimated Productions" and "Ex-vessel Value" sums for the activity that the stocking supported (i.e., either fishways or lake fertilization). Costs of stocking during 1988-89 are included in the stocking activity.

Monitoring performance of enhanced fish habitat has occurred for each type of habitat enhancement activity. Generally, the projects that are included in the activities listed in Table 3 receive a minimal, or qualitative, level of monitoring. That is, some review is conducted to ensure that the project is generally operating as designed. Additional monitoring is conducted on many projects to more accurately determine fish production. A few representative projects are quantitatively monitored to test the production estimates used during the planning and design phases of project development. This monitoring generally requires the greatest investment in time and dollars and usually involves intensive enumeration and tagging of immature salmon. Most fisheries managers believe a greater emphasis should be placed on intensive types of monitoring, to more accurately determine the actual contribution that each type of enhancement activity makes to the total harvest.

#### TONGASS NATIONAL FOREST ENHANCEMENT ACTIVITY

Small Instream Structural Projects (large woody debris (LWD), gabions, etc.)

Small structures are sometimes constructed in stream channels to improve rearing habitat for salmon. Juvenile coho, chinook and sockeye salmon and steelhead trout usually require 1-4 years of rearing in freshwater before migrating to saltwater where they mature. Instream structures, often constructed of logs or rock, provide cover to protect fish from predators, increased water depth during summer and winter low flow periods and shelter from high stream flows. These improvements often result in increased numbers or sizes of the immature salmon outmigrating to saltwater.

Although individual structures can be low in cost, large numbers of structures may be needed to significantly change the habitat. Structures have a design life ranging from 5 to 25 years; the benefit/cost ratios range from 2:1 to 10:1.

#### Lake Fertilization

Some lakes exhibiting low levels of fertility, and high potential for salmon production, are enriched using commercial fertilizers. The objective of lake fertilization is to enhance primary food production and to increase the size and survival of salmon fry. By enriching the lakes' nutrient level there is a



measurable increase in the number and/or size of outmigrating juvenile salmon, resulting in increased numbers of adult salmon available for harvest. Lake fertilization is a relatively expensive enhancement technique requiring detailed pre and post-fertilization monitoring. However, large increases in salmon production are often realized. Benefit/cost ratios can be as high as 4:1.

Bioenhancement (stocking of salmon fry) is often conducted in association with lake fertilization.

### Fishways

Fishways structures are constructed at stream barriers to allow salmon and trout passage to upstream spawning and rearing habitat. There have been more fishways constructed than any other type of project. Barriers can be partial, with some adult salmonids passing during specific water flows, or the barriers may be total, blocking salmon migration at all water flows. The exact number of barriers on streams throughout the Tongass National Forest is unknown. However, fisheries managers believe there could be more than a thousand unidentified barriers on streams on the Tongass National Forest. As barriers are identified, analyses are conducted on a site specific basis to determine feasibility and cost effectiveness of fishway construction. Many barriers have been identified on streams that have too little available habitat upstream to justify investment in a fishway structure.

The fishway construction program has been very successful. Most fishways built since 1980 have survived high flow periods and pass fish as designed. (Some fishways have required modifications following initial construction to ensure fish passage.) Periodic maintenance is required to remove debris from the ladders and jump pools. Most fishways are constructed with an average design life of 25 years. Fishways are generally expensive to construct but can have benefit/cost ratios as high as 13:1 when favorable salmon and steelhead trout spawning and rearing habitats exist above the barrier.

Bioenhancement is sometimes associated with fishway construction. Juvenile salmon, raised in hatcheries, are released in the stream and or lake habitat above the newly constructed fishway. Bioenhancement ensures early establishment of runs of adult spawners.

### Spawning Channels

Spawning channels are constructed to provide stable spawning and rearing habitat for salmon. The most common strategy employed in Southeast Alaska is the excavation of a channel adjacent to a stream such that the channel provides fish access to the main stream. Intercepted ground water, in areas of upwelling, can also provide flowing water for the constructed spawning channels. Spawning channels can be low cost projects with benefit/cost ratios as high as 8:1.

Spawning channels may receive bioenhancement in the form of adult salmon transfers into the channel. Blocking the spawning channel connection to the mainstream usually results in the transferred salmon spawning in the channel.

Spawning channel construction is a relatively new salmon enhancement technique on the Tongass National Forest. However, early results indicate that spawning channels can be a very cost effective method to produce salmon in Southeast

Alaska. The major limitation to the construction of spawning channels is the need for ground water interception.

### Rearing Ponds

Rearing ponds can provide increased quantity and often quality of rearing habitat for juvenile salmon over natural stream systems. Ponds are constructed near a stream system and connected to the stream by ditches or channels. Juvenile salmon rearing in the stream move into the more favorable pond habitat.

Costs of rearing-pond construction varies considerably. Some ponds are constructed during road gravel excavation projects, while other ponds are constructed solely for the purpose of rearing salmon. Rearing-ponds are moderate in cost with an average benefit/cost ratio of 4:1.

Rearing ponds appear to be a cost effective means of successfully increasing the size and number of juvenile coho salmon produced. Rearing-ponds require continued monitoring with more emphases placed on quantitative monitoring techniques to more accurately determine the contribution of pond reared salmon to the common property fishery.

### Incubation Boxes

Incubation boxes are used in remote locations to incubate salmon eggs. These devices are similar to incubation systems used in fish hatcheries but operate with little maintenance. Unlike incubation systems in hatcheries, salmon fry swim out of the boxes and into a stream or lake ecosystem. Use of incubation boxes increases the survival of eggs to fry over survival commonly observed in stream gravels.

Incubation boxes can be moderately expensive projects. However, survival of salmon eggs to fry is about 70 percent and maximum production has measured at 98 percent. Benefit/cost ratios can be as high as 20/1.

### Falls Modification (barrier modification)

Falls modification is the means by which either a partial or total barrier to salmon migration is altered to enhance fish passage. This is usually accomplished by creating small pools in the falls or high velocity chutes. These pools are either created in the natural bedrock or may be created by the construction of low concrete walls. Monitoring of salmon passage under various flow conditions is often needed to determine if the falls modification has been successful or if further modification is needed.

Barrier modification projects have a high rate of success and are moderate in cost. Benefit/cost ratios have been as high as 12:1. Bioenhancement is sometimes required to ensure early establishment of runs of adult spawners.

## Debris Removal

Debris removal is a habitat enhancement technique utilized extensively during the 1970's on the Tongass National Forest. Natural debris deposited in stream channels was thought to create barriers to upstream migration of adult salmon and to reduce available spawning habitat. Extensive stream cleaning was conducted to remove the debris. Unfortunately, debris removal was conducted in excess and much beneficial large woody debris (structure) was removed from some stream channels. This work was well intentioned and considered to have positive benefits for pink and chum salmon, the young of which leave the stream ecosystem immediately upon emerging from the gravel substrate. Salmon species requiring instream rearing habitat during the early portion of their life cycles probably declined in numbers as a result of debris removal practices. Studies have recently shown that large woody debris adds diversity to stream ecosystems and in most instances is beneficial to the production of salmon in those systems. Debris removal projects are currently conducted under the careful supervision of fisheries managers.

Debris removal is labor intensive and generally exhibits a low benefit/cost ratio. Some notable exceptions do exist in which very high benefits resulted from debris removal. In two instances, accumulations of debris at the outlets of lakes blocked migration into the lake and the associated habitat in the streams above the lake. Removal of the blockage resulted in large numbers of salmon reaching the high quality habitat in the lake and further up the watershed. Benefit/cost ratios, in these exceptions, are calculated to be as high as 100:1.

## Stocking, Lake and Stream

Stocking of lakes and streams has been accomplished generally for the purpose of bioenhancement of other enhancement projects. As previously discussed, bioenhancement seeds new habitat with young salmon with the objective of establishing self-perpetuating wild runs of salmon.

An exception to the establishment of self-perpetuating wild runs of salmon by bioenhancement has been the practice of "barren" lake stocking. Barren lake stocking consists of planting immature salmon in lakes that do not have natural runs of salmon because of barriers. The stocked juvenile salmon rear in the lakes until emigrating to saltwater where they mature. Total harvest of these salmon is targeted since natural reproduction is not possible. Generally the barriers do not prevent the outmigration of salmon smolts, although modification of barriers may be necessary to enhance emigration. Species released in the lakes, to date, have been coho and chinook salmon.

Lake and stream stocking is an effective enhancement technique. Survival of juvenile salmon in lakes, can be as high as 65% or as low as 1%, depending on the lake, species released in the lake, and disease associated with the species and the lake.



## Northern Southeast Regional Aquaculture Association (NSRAA) Habitat Enhancement Activities

In addition to cooperative projects on the Tongass, NSRAA has undertaken projects in Southeast Alaska which are off National Forest lands (Table 4). Descriptions of spawning channel and incubation box projects found in the previous discussion of Tongass National Forest Enhancement Activities are also applicable to the NSRAA projects.

Table 4. Northern Southeast Regional Aquaculture Association, Fisheries Habitat Enhancement Projects Completed During 1980-89

Enhancement activity (No. of projects)	Estimated production of fish (M lb/yr)	Estimated Ex-vessel value (M \$/yr)	Cost to Association (M \$/yr)
Spawning Channels (2)	66.7	40.7	174
Incubation Boxes (1)	<u>65.4</u>	<u>33.6</u>	<u>15</u>
Total (3)	132.1	74.3	189

SOURCE: Northern Southeast Regional Aquaculture Association.

## FUTURE FISHERIES HABITAT ENHANCEMENT OPPORTUNITIES

There are 121 potential projects identified for implementation during the next ten years of implementation of the Tongass National Forest Land and Resource Management Plan (Table 5). Most of the 121 potential projects have not been through environmental analyses nor on site review required to determine project feasibility.

Table 5. Number of Potential Enhancement Projects by Type

<u>Project Type</u>	<u>Single Year</u>	<u>Multi-Year</u> <sup>1</sup>	<u>Total</u>
Small instream structural <sup>2</sup>	32	5	37
Structural Fish passage	49	0	49
Falls modification	6	6	6
Spawning channels	2	0	2
Rearing ponds/streams	4	1	5
Barren lake stocking	0	3	3
Coop. fish stocking (not barren lake)	2	7	9
Incubation boxes	3	1	4
Lake fertilization	0	5	5
Debris removal	1	0	1
TOTAL PROJECTS	99	22	121

<sup>1</sup> Multi-year projects are usually implemented in successive years but only counted as one activity. Fertilization of a particular lake is an example of a single project which may be repeated for several years in order to achieve the desired objective of restoring a natural run of salmon to the lake.

<sup>2</sup> The majority of the small instream structural projects, including projects such as large woody debris and gabion placement, mitigate past logging activities. These projects may be considered as rehabilitation rather than enhancement.

All projects which are determined to be feasible, following environmental analysis, and on site review, may be scheduled for implementation. The final implementation schedule will be dependent upon a variety of factors including budget availability, cost/benefit ratios and partnership opportunities. An additional factor for consideration is the timing and location of other forest management activities. Some activities, such as road construction for timber harvest purposes, are important for the successful implementation of some fisheries projects.

Implementation of all potential fisheries enhancement projects on the Tongass during the next decade is estimated to total 714.6 million pounds of salmon through the first five decades. The aggregated value of this harvest is projected to be 435.9 million dollars during this same period.

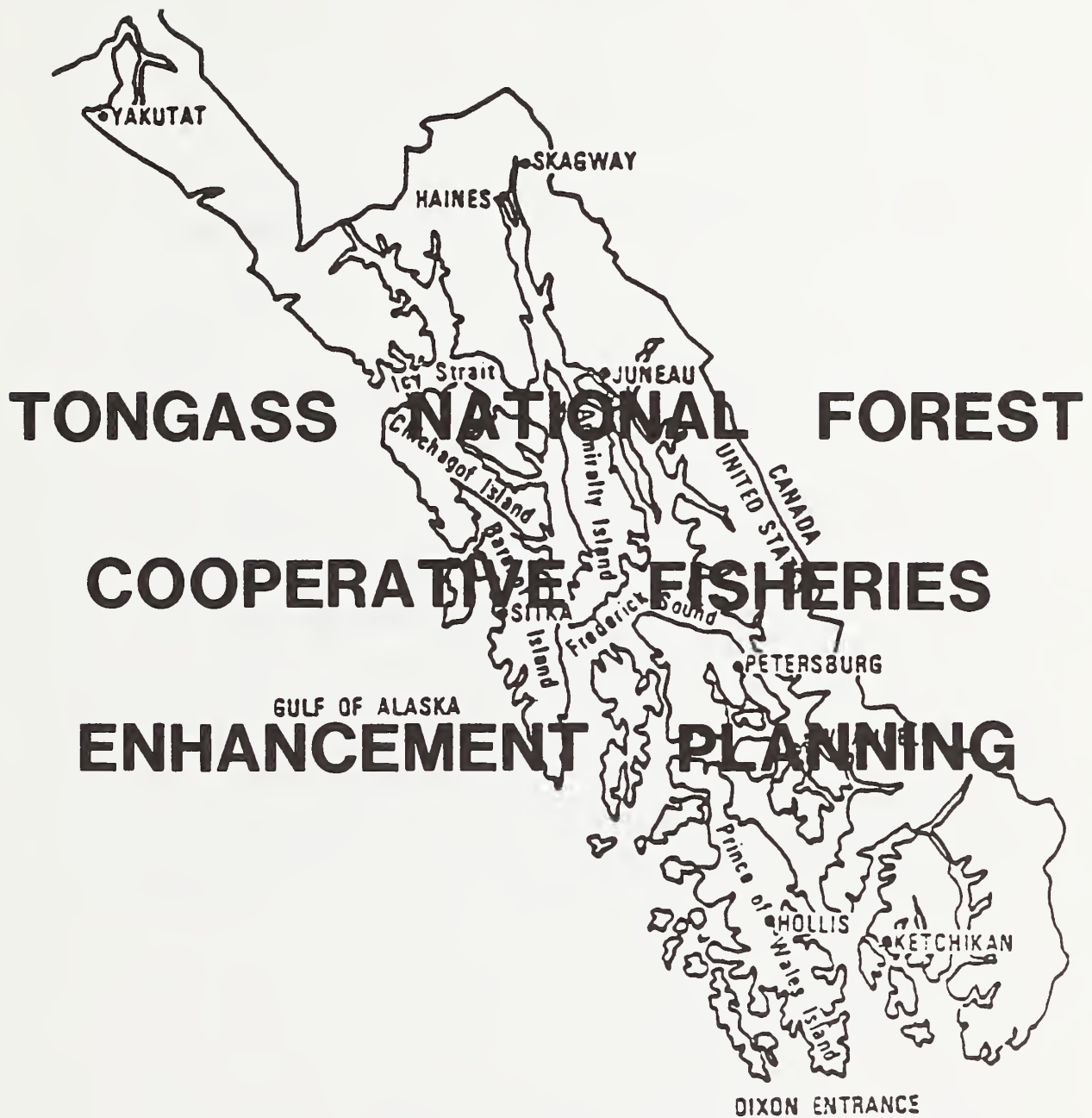
#### RECOMMENDATIONS FOR LEGISLATIVE ACTION

Current laws and regulations adequately provide for the program summarized in this report. No additional legislative action is recommended to further implement the proposed fisheries enhancement program in the Tongass National Forest.





# ATTACHMENT



MEMORANDUM

Page ii is missing from the file copy of this document.

## Table of Contents

List of Figures	iv
List of Appendices	iv
Acknowledgements	v
Glossary	vi
Glossary of Acronyms	viii
I. Introduction.	1
II. Assumptions.	2
III. Mission Statement.	2
IV. Goals and Objectives.	2
V. Planning Process Structure.	3
VI. Planning Process Components.	5
VII. Process Implementation.	6
VIII. Approvals.	8
Appendices	

## List of Figures

		Page
Figure 1	Tongass National Forest Cooperative Fisheries Enhancement Planning Process.	5

## List of Appendices

Appendix I	New Project Opportunity Form.
Appendix II	New Project Opportunity Verification Form.
Appendix III	Amendments to Master Memorandum of Understanding between the Alaska Department of Fish and Game and the USDA Forest Service.
Appendix IV	Amendments to the Memorandum of Understanding between the Alaska Department of Fish and Game, the USDA Forest Service, Prince William Sound Aquaculture Corporation, and Cook Inlet, Northern Southeast Regional and Southern Southeast Regional Aquaculture Associations.
Appendix V	1) Memorandum of Understanding between the Alaska Department of Fish and Game, the USDA Forest Service.  2) Memorandum of Understanding between the Alaska Department of Fish and Game, the USDA Forest Service, Prince William Sound Aquaculture Corporation, and Cook Inlet, Northern Southeast Regional and Southern Southeast Regional Aquaculture Associations.

## Acknowledgements

The Tongass National Forest Cooperative Fisheries Enhancement Planning Process has been developed through the cooperative efforts of a working group formed for the task. The working group represents those agencies and organizations potentially affected by the planning process. The Working Group and agency or organization represented is listed below.

<u>Name</u>	<u>Representing</u>	<u>Address</u>
Dick Aho	USDA-FS-Stikine SO-WLF	Petersburg
Robert S. Benda	USDA-FS-Ketchikan SO-WLF	Ketchikan
Helen Castillo	USDA-FS-JRD, Admiralty IS.	Juneau
Ray Clark	USDA-FS-RO-EC	Juneau
Albert Collotzi	USDA-FS-Chatham SO-WLF	Sitka
Bob Dewey	USDA-FS-RO-WLF	Juneau
Gary Freitag	SSRAA	Ketchikan
Richard Harris	Sealaska Corporation	Juneau
Dave Heerwagen	USDA-FS-RO-PP&B	Juneau
Kathy Kyle	NSRAA	Sitka
Jerry L. Madden	ADF&G-FRED	Juneau
Christopher Pace	ADF&G-FRED	Juneau
Dave Rittenhouse	USDA-FS-RO-Rn	Juneau
Walt Sheridan	USDA-FS-RO-AC	Juneau
Jim Stratton	SEACC	Juneau
Frank Van Hulle	ADF&G-Sport Fish	Juneau

Special recognition is given to Jerry Madden and Chris Pace. They have contributed significantly throughout the development of this planning process. Bob Dewey is the Group Leader for this task.

## Glossary

Alaska Statute 16.10.375. Regional Salmon Plan - The commissioner shall designate regions of the state for the purpose of salmon production and have developed and amend as necessary a comprehensive salmon plan for each region, including provisions for both public and private nonprofit hatchery systems. Subject to plan approval by the commissioner, comprehensive salmon plans shall be developed by regional planning teams consisting of department personnel and representatives of the appropriate qualified regional associations.

Alaska Statute 16.10.380. Regional Associations - (a) The commissioner shall assist in and encourage the formation of qualified regional associations for the purpose of enhancing salmon production. A regional association is qualified if the commissioner determines that:

(1) it is comprised of associations representative of commercial fishermen in the region;

(2) it includes representatives of other user groups interested in fisheries within the region who wish to belong; and

(3) it possess a board of directors which includes no less than one representative of each user group that belongs to the association.

(b) In this section "user group" includes, but is not limited to, sport fishermen, processors, commercial fishermen, subsistence fishermen, and representatives of local communities.

(c) A qualified regional association, when it becomes a nonprofit corporation under AS 10.20, is established as a service area in the unorganized borough under AS 29.03.020 for the purpose of providing salmon enhancement services.

Alaska National Interest Lands Conservation Act - Public Law 96-487.

Benchmark - A resource planning reference. The estimated unconstrained capability of the National Forest to produce salmon.

Forest Service Manual - A component of the Forest Service Directives System. The Forest Service Manual is the basic guide to all programs and activities. The Forest Service Manual sets broad policy and guidance for all program activities within the Forest Service.

Monitoring - an evaluation process to determine how well objectives have been met.



National Environmental Policy Act of 1969 - Federal legislation to declare a national policy which will encourage productive and enjoyable harmony between man and his environment.

Regional Aquaculture Associations - see Alaska Statute 16.10.380 above.

Regional Comprehensive Salmon Plan - see Alaska Statute 16.10.375 above.

Regional Comprehensive Salmon Plan, Phase I - sets goals and objectives for salmon production in the region for the planning period (1980-2000), and establishes the background and philosophy for enhancement.

Regional Comprehensive Salmon Plan, Phase II - specific plans for Northern Southeast and Southern Southeast Alaska that identify and prioritize enhancement opportunities within the southeast region.

Regional Five-Year Action Plan - prioritized recommended enhancement opportunities identified in the Phase II Comprehensive Salmon Plans. Action Plans are dynamic planning tools that are annually updated through the Regional Planning Team process.

Regional Planning Team - see Alaska Statute 16.10.375 above.

Tongass Land Management Plan - a forest management plan that provides for multiple-use and sustained yield of goods and services from the National Forest.

## Glossary of Acronyms

ANILCA	Alaska National Interest Lands Conservation Act
NEPA	National Environmental Policy Act
NFMA	National Forest Management Act
RPT	Regional Planning Team (Salmon Planning)
TLMP	Tongass Land Management Plan

## Tongass National Forest Cooperative Fisheries Enhancement Planning

### I. INTRODUCTION

Public Law 96-487, Alaska National Interest Lands Conservation Act (ANILCA), Section 507 states the following:

SEC. 507. (a) The Secretary of Agriculture is directed to implement a cooperative planning process for the enhancement of fisheries resources through fish hatchery and aquaculture facilities and activities in the Tongass National Forest. Participation in this process shall include, but not be limited to, the State of Alaska and appropriate nonprofit aquaculture corporations. The Secretary may contract with private, nonprofit associations for services in such planning.

(b) Each subsequent revision of National Forest management plans under the Forest and Rangeland Renewable Resources Planning Act of 1974 and the National Forest Management Act of 1976 shall contain a report on the status of the planning process undertaken under this paragraph, including, but not limited to, a description of current hatchery and aquaculture projects, an analysis of the projects anticipated for the duration of the management plan. The report shall be submitted by the Secretary to the Congress with recommendations for any legislative action which the Secretary may deem necessary to implement the proposed hatchery and aquaculture projects.

In effect, Section 507(a) provides for the integration of Alaska regional salmon planning into the land management planning process for the Tongass National Forest.

### II. ASSUMPTIONS

Legislative history on the intent of Section 507(a) is limited. Therefore, the following assumptions were made to guide the development of the cooperative fisheries planning process:

1. Regional salmon planning, functioning under Alaska Statute 16.10.375, will provide data, investment opportunity recommendations, and resource benchmark information for fisheries enhancement on the Tongass National Forest.

2. The affected decision-makers will approve the process.

3. Monitoring will be required to satisfactorily comply with the evaluation requirements of Section 507(b).

4. The primary tools of fisheries resource rehabilitation and enhancement are fisheries management strategies and habitat protection.

### III. MISSION STATEMENT

Implement a cooperative planning process for the enhancement of fisheries resources on the Tongass National Forest through fish hatcheries, aquaculture developments, and other fisheries resource rehabilitation and enhancement activities.

1. The planning process will specifically address fisheries resource development opportunities including, but not limited to, permanent improvement and facilities, such as fishways, fish weirs, fish ladders, fish hatcheries, spawning channels, stream clearance, egg planning, stocking, fertilization, and other accepted means of maintaining, enhancing, and rehabilitating fish stocks.

2. Status reports will be developed in accordance with ANILCA Section 507(b) and will accompany each revision of the Tongass Land Management Plan.

### IV. GOALS AND OBJECTIVES

GOAL I. Coordinate planning processes.

#### Objectives

1. Combine Yakutat and Southeast Alaska salmon planning into a unified program for the Tongass National Forest.

2. Define how the Forest Service, Alaska Department of Fish and Game, and Southeast Alaska Regional Aquaculture Associations can cooperate in the funding of fisheries rehabilitation and enhancement investments.

3. The planning process shall encompass recreational, subsistence, and commercial fisheries needs in the Tongass National Forest.

GOAL II. Define the relationship of fisheries resource rehabilitation and enhancement opportunities on State, Private, and Tongass National Forest lands.

#### Objectives

1. Facilitate the development of fisheries opportunities in watersheds having multiple land ownership.

2. Define the appropriate level and types of fisheries rehabilitation and enhancement activities in Tongass National Forest wilderness.

GOAL III. Recognize the goals and objectives of the Regional Comprehensive Salmon Plan, as they apply to the Tongass National Forest.

Objectives

1. Identify a fisheries resource benchmark that is based on public expectations and usage.

2. Recognize harvest objectives and socioeconomic concerns of the regional salmon plans.

GOAL IV. Provide investment opportunity recommendations for fisheries enhancement programing, planning, and budgeting on the Tongass National Forest.

Objectives

1. Implement investment recommendations developed through regional salmon planning.

V. PLANNING PROCESS STRUCTURE

1. Coordination

Cooperative implementation of fisheries rehabilitation and enhancement programs on the Tongass National Forest has been ongoing and is addressed in the existing Memoranda of Understanding between the Alaska Department of Fish and Game, the Regional Aquaculture Associations, and the USDA Forest Service. Planning for these cooperative efforts has functioned informally.

The State of Alaska regional salmon planning and the National Forest planning process have functioned independently. Coordination between these independent processes have occurred based on need without benefit of the guidance of a formal structured process. Formalization of a cooperative planning process for the Tongass National Forest is accomplished through the ANILCA Section 507(a) mandate.

2. Planning and Budgeting

The cooperative planning process will extend program coordination beyond project implementation to include the planning and budgeting processes of the Alaska Department of Fish and Game, the Regional Aquaculture Associations, and the Forest Service. Moreover, through this process, maximum program efficiency and benefits to the resource will be realized.



### 3. Reports

Evaluation reports are required (ANILCA Section 507(b)). The reporting process will be formalized and shall include, but not be limited to, the participation of the Alaska Department of Fish and Game, the Regional Aquaculture Associations, and the Forest Service. Annual reports and any additional information determined necessary by the cooperating agencies will be utilized in the report to the Congress that must accompany each revision of the TILMP. The report will function as a monitoring element to determine the effectiveness of cooperative fisheries planning in the multiple-use interactions occurring within the National Forest planning process. The Memoranda of Understanding shall be amended to reflect this ANILCA requirement.

A flow diagram (Figure I) illustrates the cooperative planning process.

## VI. PLANNING PROCESS COMPONENTS:

The Tongass National Forest Cooperative Fisheries Planning Process is the orderly compilation of data to provide enhancement opportunity recommendations. The process is composed of sequentially integrated components and encompasses both the regional salmon planning and forest planning processes. A description of each process component is presented below.

### 1. Enhancement Opportunity Identification.

Fisheries enhancement opportunities are identified by participants in the planning process or by others. This information is integrated into the existing data base, which includes harvest and escapement data, stream surveys, and completed enhancement opportunity evaluations. Public opinion and other information also contribute to this process.

Investment opportunity identification will be accomplished through the use of New Project Opportunity Forms (Appendix I). New investment opportunities will be verified using the Project Verification Form (Appendix II). Only verified opportunities shall be addressed in cooperative fisheries planning for the Tongass National Forest.

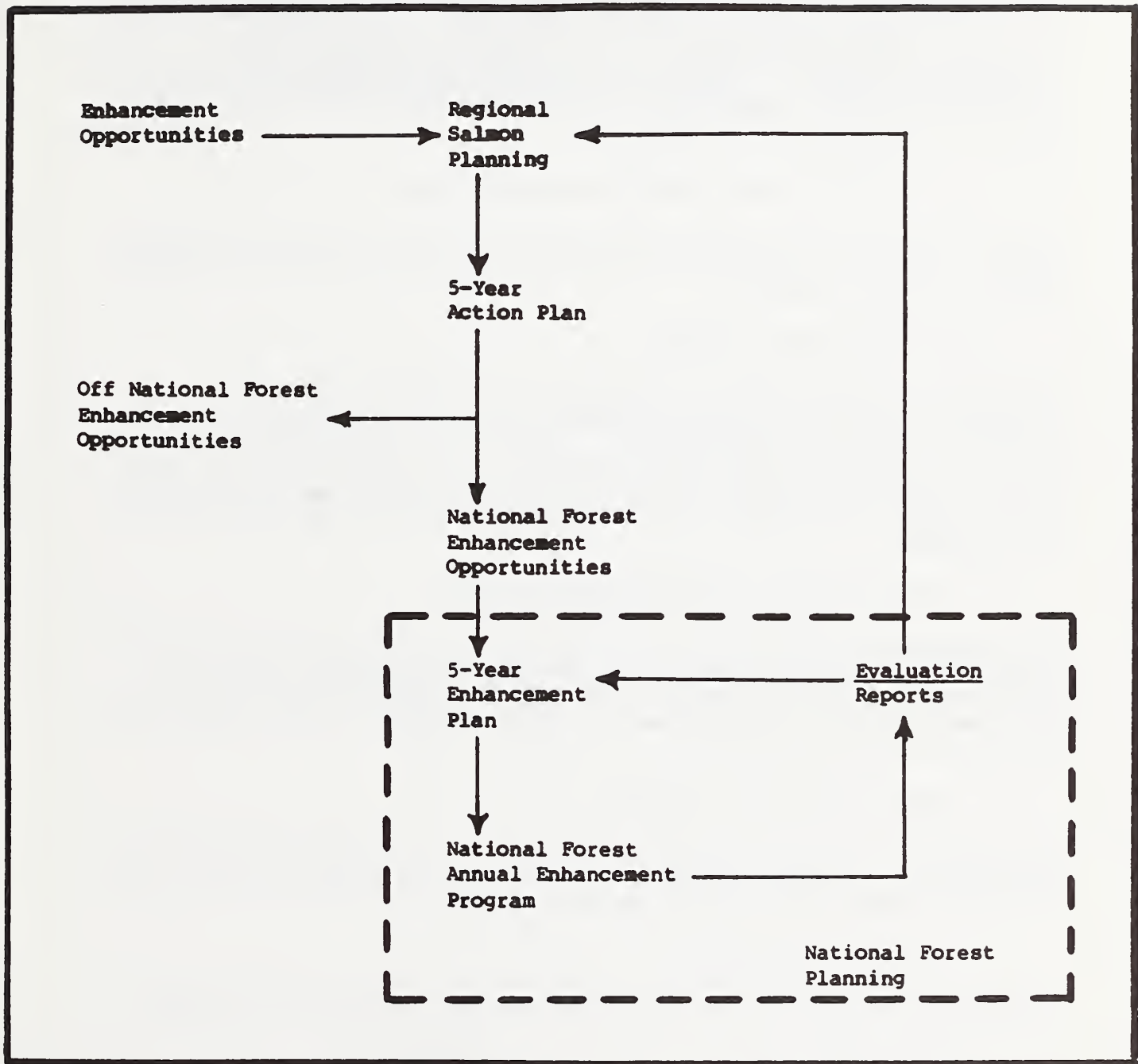
### 2. Regional Salmon Planning.

The Regional Salmon Planning Team identifies, evaluates, and prioritizes opportunities for inclusion in the Regional Comprehensive Salmon Plan.



Figure 1.

**TONGASS NATIONAL FOREST  
COOPERATIVE FISHERIES ENHANCEMENT  
PLANNING PROCESS**



### 3. Five-year Action Plan.

The five-year action plans give guidance to fisheries development throughout the Southeast Region. These plans identify and recommend priority projects that are necessary to meet fisheries harvest production goals. Analysis determines those opportunities occurring within the National Forest boundaries, including wilderness, and represents an unconstrained enhancement benchmark. Integration of the recommended opportunities with other forest resource management strategies will occur through the National Forest multiple-use planning process.

### 4. Off National Forest Enhancement Opportunities.

Regional fisheries enhancement opportunities do occur outside the National Forest. These will be aggregated with the National Forest data for regional program evaluation purposes.

### 5. National Forest Planning.

Recommended fisheries opportunities within the National Forest are integrated with other resource management strategies, including wilderness, through the Forest planning process. Decisions to allow or not to allow particular projects in designated wilderness will be made through the NEPA process, which will include identification and evaluation of non-wilderness alternatives, if available, and the relative impact of the proposed action to wilderness.

### 6. National Forest Five-year Enhancement Plan.

This fisheries enhancement plan is implemented according to National Forest Management Act direction, conforms to National Environmental Policy Act requirements, and is approved by the Regional Forester. The Five-year Enhancement Plan will be contained in TLMP as an appendix that is drawn from the body of the Forest Plan.

### 7. Annual Enhancement Program.

The cooperating agencies initiate programming and budgeting to achieve plan implementation. Progress and accomplishments on the Tongass National Forest are cooperatively evaluated and reported annually.

### 8. Evaluation and Reports.

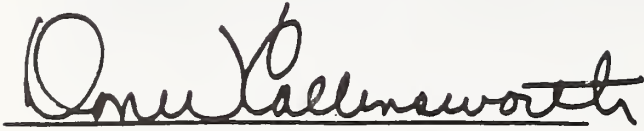
A report on the status of the cooperative planning process must accompany each revision TLMP.

The Regional Comprehensive Salmon Plans, the Tongass National Forest Cooperative Five-year Enhancement Plan, and the annual Enhancement Program evaluation reports will provide the basis of the status report.

## **VII. PROCESS IMPLEMENTATION**

Implementation of the Tongass National Forest Cooperative Fisheries Enhancement Planning Process will follow a formal administrative procedure. The planning process will recognize the statutory requirements of each cooperating agency and organization and will be formalized through amendments to the Memoranda of Understanding between the Alaska Department of Fish and Game, the Regional Aquaculture Associations, and the USDA Forest Service.

VIII. APPROVALS

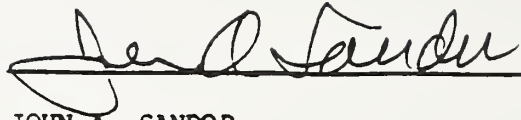


DON W. COLLINSWORTH

Commissioner

Alaska Department of Fish and Game

DATE: 2-9-84



JOHN A. SANDOR

Regional Forester

Forest Service, Region 10

DATE: 1/11/84



PETER A. ESQUIRO

General Manager

Northern Southeast Regional  
Aquaculture Association

DATE: 12/13/83



RONALD W. WENDTE

Executive Director

Southern Southeast Regional  
Aquaculture Association

DATE: 1-6-84

## Appendix I



## FISHERIES REHABILITATION AND/OR ENHANCEMENT NEW PROJECT OPPORTUNITY FORM\*

1. WHAT (give a brief description):

2. WHERE (be specific):

3. BENEFITS:

4. SUBMITTED BY (name, address, telephone, etc.):

Distribute this form to the following persons:

1. Your Supervisor

2. Regional Supervisor(s)  
Appropriate ADF&G Office  
a. Commercial Fisheries  
b. Sport Fisheries  
c. F R E.D.  
d. Habitat Section

Regional Office  
230 South Franklin  
Juneau, AK 99801  
or  
Regional Office  
333 Raspberry Rd.  
Anchorage, AK 99502

3. Director of Fisheries & Wildlife  
USDA Forest Service  
Box 1628  
Juneau, AK 99802

4. Program Manager Fish & Wildlife  
(Appropriate Forest Supervisor)

a. Stikine Area  
Tongass National Forest  
P.O. Box 309  
Petersburg, AK 99833  
b. Chugach National Forest  
2221 Northern Lights Blvd.  
Suite 230  
Anchorage, AK 99516  
c. Ketchikan Area  
Tongass National Forest  
Federal Building  
Ketchikan, AK 99901  
d. Chitina Area  
Tongass National Forest  
P.O. Box 1900  
Sitka, AK 99833

5. Regional Aquaculture Associations

a. Southern Southeast Regional  
Aquaculture Association  
P.O. Box 6916  
Ketchikan, AK 99901  
b. Northern Southwest Regional  
Aquaculture Association  
P.O. Box 786  
Sitka, AK 99833  
c. Prince William Sound  
Regional Aquaculture Association  
P.O. Box 1110  
Cordova, AK 99576  
d. Cook Inlet Regional  
Aquaculture Association  
P.O. Box 3619  
Soldotna, AK 99669 - 3619

\* This form is to be used to identify opportunities that may be worthy to pursue to help rehabilitate and/or enhance the fisheries. Use of this form is not limited to these agencies as all persons are encouraged to help identify opportunities. Use of this form will inform the agencies that have responsibility for projects. This form is not intended to be a proposal. Development of a Project Proposal would be in subsequent documents.

## Appendix II





CHECK LIST - ALASKA DEPARTMENT OF FISH AND GAME COMMENTS.

COMMERCIAL FISH MANAGEMENT COMMENTS:

---

---

---

---

SPORT FISH MANAGEMENT COMMENTS:

---

---

---

---

HABITAT PROTECTION COMMENTS:

---

---

---

---

F.R.E.D. MANAGEMENT COMMENTS:

---

---

---

---

REMARKS:

---

---

---

---

INSTRUCTIONS: New project opportunity verification is to be completed locally when possible. Completed verification form should be attached to the respective New Project Opportunity Form as the source of preliminary information to determine viability of the proposed opportunity.



### Appendix III

Amendments to the Master Memorandum of Understanding between the Alaska Department of Fish and Game and the USDA Forest Service (July 6, 1981).

A. The Forest Service agrees:

15. That State of Alaska Regional Salmon Planning as specified under Alaska Statute 16.10.375 is the fisheries planning component of the cooperative fisheries planning process for the Tongass National Forest.

16. That National Forest enhancement opportunities identified through regional salmon planning shall be the forest planning benchmark for fisheries enhancement on the Tongass National Forest.

B. The Department of Fish and Game agrees:

16. That the Forest Service will be a recognized participant in State of Alaska Regional Salmon Planning and hold full voting membership on the Regional Planning Teams in Southeast Alaska, Prince William Sound, Cook Inlet, and others as appropriate.

C. The Department and the Forest Service mutually agree:

15. That the Cooperative Fisheries Enhancement Plans for the Tongass National Forest will be the fisheries investment component of the Sikes Act State-wide Comprehensive Plan for Fish and Wildlife on the National Forests in the State of Alaska.

16. That a Sikes Act coordination meeting shall occur annually and shall include participation of the Department of Fish and Game Division Directors and the Forest Service Director of Wildlife and Fisheries Management.

#### Appendix IV

Amendments to the Memorandum of Understanding between Alaska Department of Fish and Game, the USDA Forest Service, Prince William Sound Aquaculture Corporation, and Cook Inlet, Northern Southeast Regional and Southern Southeast Regional Aquaculture Associations (October 26, 1981).

D. The Department, Forest Service, and Associations mutually agree:

18. That State of Alaska Regional Salmon Planning as specified under Alaska Statute 16.10.375 is the fisheries planning component of the cooperative fisheries enhancement planning process for the Tongass National Forest.

19. That National Forest enhancement opportunities identified through regional salmon planning shall be the forest planning benchmark for fisheries enhancement on the Tongass National Forest.

20. That the Regional Planning Teams for Southeast Alaska, Prince William Sound, Cook Inlet, and others as appropriate, and functioning under Alaska Statute 16.10.375, will be expanded by the Commissioner of the Alaska Department of Fish and Game to include the USDA Forest Service.

21. That the Commissioner, the Regional Forester, and the Directors of the Associations, or their representatives, will meet annually for purpose of program coordination, preparation of annual reports, and other reporting requirements as specified under ANILCA Section 507(b).

22. That investment opportunity identification will be accomplished through the use of New Project Opportunity Forms. New investment opportunities will be verified using the New Project Opportunity Verification Form. Only verified opportunities shall be addressed in the Section 507(a) cooperative fisheries planning process for the Tongass National Forest.

23. To establish a central investment opportunity data file. This file shall have unrestricted access. Opportunities in the file shall be identified by ADF&G stream number.

## Appendix V



MEMORANDUM OF UNDERSTANDING

BETWEEN

THE ALASKA DEPARTMENT OF FISH AND GAME

AND

THE U. S. FOREST SERVICE

This Master Memorandum of Understanding (MMOU) made and entered into this 6<sup>th</sup> day of July, 1981, by and between the Alaska Department of Fish and Game (ADF&G) through the Commissioner, hereinafter referred to as the Department, and the U.S. Department of Agriculture (USDA) U.S. Forest Service (FS) through the Regional Forester, hereinafter referred to as the Forest Service. National Forest lands referred to in this document are the Federally owned lands in Alaska administered by the Forest Service such as wilderness, wild and scenic rivers, National monuments, and other lands within the Tongass and Chugach National Forests.

It is recognized that the Department has been created under the laws of the State of Alaska (see appendix) to manage, protect, maintain, enhance, rehabilitate and extend the fish and wildlife populations of the State; and that the Forest Service is responsible under the laws of Congress and regulations of the USDA (see appendix) for the administration and multiple use management of the natural resources including fish and wildlife habitat on the National Forest in the State of Alaska.

It is the mutual desire of the Department and the Forest Service to work in harmony for the common purpose of maintaining, developing, and managing the fish and wildlife populations and habitat as well as other resources on the National Forest lands in the best interest of the people of Alaska and of the United States.

In consideration of the above premises the Department and the Forest Service hereto agree as follows:

A. The Forest Service agrees:

1. To recognize the Department as the agency with the authority, jurisdiction, and responsibility to manage, control, and regulate fish and wildlife populations on National Forest system lands.
2. To cooperate with the State of Alaska in the enforcement of Alaska fish and game laws and regulations to the extent permitted by Federal laws and regulations and to report violations or suspected violations to the Alaska Department of Public Safety, Division of Fish and Wildlife Protection (16 USC 553 & 36 CFR 261.8).
3. To permit the construction and maintenance of structures needed to facilitate fish and wildlife activities of the Department within the National Forests, provided such structures conform in character and location with the usual requirements of the Forest Service, and their intended use is not in conflict with Forest Service policy, objectives

and management goals, and further provided that these structures are covered by a special use permit in accord with Title V of the Federal Land Policy and Management Act of 1976.

4. To cooperate with the Department in the design, implementation, and maintenance of fish and wildlife habitat improvements on National Forests providing they are consistent with joint Department and Forest Service habitat management plans and conform to laws and regulations concerning the use of these lands, and are covered (when needed) by special use permits, cooperative agreements, EAR's, or EIS's.
5. To notify the Commissioner of proposed changes in FS policies and regulations which may affect Department programs on National Forest lands.
6. To keep the Department informed and actively involved with the project planning and Interdisciplinary Team (IDT) process for logging, road construction, insect and vegetation control, mining, mineral leasing, and the removal of nonleasable minerals, and any other developmental activities that may affect fish and wildlife resources.
7. To assist the Department, when requested, in fish and wildlife population surveys and harvest data collection to the extent of available funding.
8. To consult with the Department, prior to any proposed change in use designation and classification of any Forest Service Lands, for evaluating significant fish and wildlife values that may affect or be affected by the proposed action.
9. To furnish the Department with copies of fish and wildlife reports, and material prepared by the Forest Service pertinent to fish and wildlife and their habitat on the National Forests. These will include special reports, annual wildlife reports, recreation reports, Forest wildlife plans, and recommendations for regulatory changes necessary for protection of fish and wildlife habitat.
10. To consult with the Department at all planning levels in the development of fire management plans which may include establishment of priorities for the control of wildfires and/or wildlife habitat improvement by use of prescribed fires.
11. To consult with the Department in the cooperative planning process for enhancement of fish resources through aquaculture facilities and activities and to include these plans and progress reports in the National Forest Management Plans.
12. To cooperate in planning, collection, interpretation, and dissemination of statistical data, banding and tagging records, population trend data, census information and harvest tabulation for fish and wildlife on Forest Service lands.
13. To cooperate in the development and implementation of new analytical techniques such as application of instream flow measurements, remote sensing technology, habitat inventories and evaluation procedures, and habitat type mapping.

- 14 To incorporate into Forest Service management plans those fish and wildlife management plans formally adopted by the State to the degree possible with resource allocations made through the Tongass and Chugach Land Management Plans (LMP).

B. The Department of Fish and Game agrees:

1. To recognize the Forest Service as the agency responsible for the management of National Forest Lands in Alaska and the fish and wildlife habitat thereon.
2. To regulate and manage fish and wildlife populations on National Forest lands in such a way as to maintain or improve the quality of fish and wildlife habitat and its productivity.
3. To secure an appropriate agreement or easement from the Forest Service prior to placing signs or other structures on Forest Service lands.
4. To make available to the Forest Service, facilities, equipment, and assistance as can be utilized in fish and resident wildlife work consistent with the Department requirements and to assist the Forest Service when requested, in fish and wildlife habitat inventories, insofar as practical.
5. To notify the Regional Forester of emergency and proposed annual changes in fish and game regulations affecting Forest Service lands, and of other changes in regulations or management plans, such as a listing of proposed State-designated critical habitat areas, which may influence Forest Service management.
6. To provide the Forest Service with copies of the Department approvals for activities affecting designated anadromous fish streams on Forest Service lands as issued to persons or governmental agencies in accordance with Alaska Statutes 16.05.870, 16.10.010, and 16.05.840 insofar as these statutes apply to Forest Service activities.
7. To provide fish and wildlife input to National Forest land use planning efforts at all levels of planning.
8. To cooperate with the Forest Service in the planning, development, and implementation of habitat management plans, within the limitations of funds and manpower available for that purpose. This will include cooperation in the prevention of forest fires, and participation in the development of fire management plans which may include improving the quality or diversity of wildlife habitat by prescribed fires.
9. To provide the Forest Service with reports relating to management of fish and wildlife populations and habitat.
10. To make or sanction no introduction of any native or exotic fish or game wildlife species, building structure, or conduct any habitat modification program on National Forest lands, without receiving formal agreement from the Forest Service after providing information necessary for the Forest Service to prepare an environmental assessment on the proposal.



11. To notify the Forest Service of any animal damage control activities on Forest Service lands; and to obtain Forest Service approval for the use of pesticides, herbicides, or other toxic chemical agents in the course of animal damage control.
12. To request from the Department of Public Safety normal enforcement of the State fish and game laws and regulations that are applicable on Forest Service lands.
13. To notify the Forest Service of fish and wildlife habitat conditions on Forest Service lands which are noticeably below optimum and to suggest programs to alleviate such conditions.
14. To provide all maintenance on any facilities, structures or other modifications of the Department on Forest Service lands and to recognize the sole responsibility of the Department for liability claims arising on or out of, or as a result of, the said modifications, facilities and/or structures on National Forest lands, and reimbursement for damages or costs of rehabilitation of the respective parties' property or capital improvements.
15. That the State will provide for the definition, preference, and participation in subsistence uses of fish and wildlife as provided in the Alaska National Interest Lands Conservation Act sections 803, 804, and 805.

C. The Department and the Forest Service mutually agree:

1. To cooperate, consistent with respective statutory and regulatory responsibilities, in the management of fish and wildlife populations and habitat and other pertinent National Forest resources consistent with the multiple-use land programs of the State of Alaska and the U. S. Department of Agriculture.
2. To foster a united approach by the Department and the Forest Service to problems relating to fish and wildlife management, land-use planning, and other issues of mutual concern that will mutually support the management objectives and goals of both agencies to the extent possible.
3. To make available to representatives of the other agencies such improvements, facilities, and equipment as would normally be used in fish and wildlife and Forest Service work, provided they are not currently in use by the owning agency or committed to other use and provided that such use will be coordinated with local representatives of each agency and will be covered by separate permits and agreements as necessary.

4. To resolve, on the ground, all questions pertaining to the cooperative work of the two agencies which arise in the field and to refer all matters of disagreement that cannot be resolved at equivalent field levels to the Regional Forester and to the Commissioner of the Alaska Department of Fish and Game for decision before either agency expresses its position in public.
5. To encourage a free exchange of research and assessment data to insure the success of cooperative studies and to cooperate to the degree funds are available in preparation of publications, announcements, and dissemination of information. Any material published as a result of cooperative studies may be reproduced, with credit to be given to the agency responsible for the development of the material. Any news releases relating specifically to cooperative programs may be made only by mutual consent of both parties.
6. Nothing herein is intended to conflict with or limit the current directives, laws, delegations of authorities or regulations of the signatory agencies. If there are conflicts with current directives, at the first opportunity this agreement will be changed by amendment or a new agreement will be entered into.
7. That nothing in the agreement shall be construed as obligating the Department, the State of Alaska, Forest Service, or the United States Government to the expenditure of funds and for the future payment of money in excess of appropriations authorized by law.
8. Each party agrees that it will be responsible for its own acts and the results thereof and each party shall not be responsible for the acts of the other party; and each party agrees it will assume to itself risk and liability resulting in any manner under this agreement.
9. That no member of, or delegate to, Congress or Resident Commissioner shall be admitted to any share or part of this agreement, or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this agreement if made for a corporation for its general benefit.
10. To comply with Public Law 91-190, the National Environmental Policy Act of 1969, the cooperator and Forest Service agree to direct their program activities covered by this agreement toward managing and enhancing the environment for the widest range of beneficial uses without its degradation or risk to health or safety or other undesirable consequences. The cooperator further agrees to assist the Forest Service in the preparation of environmental statements as required by section 102(2)(c) of PL 91-190 for all major Federal actions taken under this agreement which might significantly affect the quality of the human environment or be highly controversial in regard to unresolved conflicts concerning the use of resources.



11. To meet annually, at the Regional Forester/Commissioner staff level, and in the last one-quarter of the calendar year, to discuss matters relating to the management of fish and wildlife resources on, or affected by Forest Service lands; and to provide for other meetings at various administrative levels for discussion of law enforcement; educational programs; cooperative studies; research; fish and wildlife surveys; habitat development; hunting, fishing, and trapping seasons; and such other matters as may be relevant to fish and wildlife populations and their habitats.
12. That amendments to this agreement may be proposed by either party and shall become effective upon approval by both parties.
13. To prepare any supplemental memorandum of understanding and/or specific cooperative agreements within the framework of this Master Memorandum. Supplements will be numbered consecutively and be signed by the same signatures or their representatives as this MMOU.
14. That this agreement shall become effective as soon as it is signed by the Commissioner of the Department, and Regional Forester of the Forest Service and shall continue in force until terminated by either party following one year notice in writing to the other of the intention to terminate upon a date indicated.

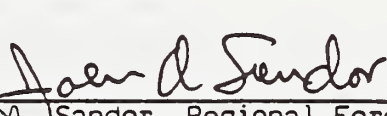
STATE OF ALASKA

Department of Fish and Game

By   
Ronald O. Skoog, CommissionerDate 6 July 81

U. S. DEPARTMENT OF AGRICULTURE

Forest Service

By   
John A. Sandor, Regional ForesterDate July 6, 1981

# Appendix

Relevant State of Alaska statutes and administrative regulations pertaining to the protection, management, and use of fish and wildlife populations and wildlife habitat in the State of Alaska and Federal authorities for management of National Forest lands.

Forest & Rangeland Renewable Resources Planning Act of August 17, 1974, (88 Stat. 476, as amended; 16 USC 1600-1614).

National Forest Management Act of October 22, 1976, (90 Stat. 2949; 16 USC 472 et seq.).

Fish and Wildlife Coordination Act of March 10, 1934, (48 Stat. 401, as amended; 16 USC 661 et seq.).

Endangered Species Act of December 28, 1973, (87 Stat. 884 as amended; 16 USC 1531 et seq.).

Dingell Johnson Sport Fish Restoration Act.

Pittman Robertson Wildlife Restoration Act.

Marine Mammal Protection Act.

Coastal Zone Management Act.

Lacey Act.

Administrative Procedures Act.

Anadromous Fish Conservation Act.

Alaska National Interest Lands Conservation Act 1980, (P.L. 96-487).

Sikes Act of 1974, as amended (P.L. 93-452).

Sikes Act of 1978, as amended (P.L. 95-420).

Multiple Use-Sustained Yield Act of June 12, 1960, (74 Stat. 215, 1959 amended; 16 USC 528-531).

Fish and Wildlife Conservation Act of 1979.

Conservation Programs on Public Lands Act of September 15, 1960, (74 Stat. 1052, as amended; 16 USC 670g-670l, 670o).

Knutson-Vandenburg Act of June 9, 1930, (46 Stat. 527, as amended; 16 USC 576-576b).

Federal Land Policy and Management Act of 1976, (P.L. 94-579; 90 Stat. 2743).

MEMORANDUM OF UNDERSTANDING  
Between  
ALASKA DEPARTMENT OF FISH AND GAME  
and  
U.S. DEPARTMENT OF AGRICULTURE, FOREST SERVICE  
and  
PRINCE WILLIAM SOUND AQUACULTURE CORPORATION,  
AND COOK INLET, NORTHERN SOUTHEAST REGIONAL,  
AND SOUTHERN SOUTHEAST REGIONAL  
AQUACULTURE ASSOCIATIONS

This MEMORANDUM, effective as of the 26 day of October, 1981, between the Alaska Department of Fish and Game (hereafter referred to as the Department), the U.S. Department of Agriculture, Forest Service (hereafter referred to as the Forest Service), and the Cook Inlet, Prince William Sound, Northern Southeast Regional and Southern Southeast Regional Aquaculture Associations (hereafter referred to as the Associations.

WITNESSETH:

WHEREAS: The Department has been created under the laws of the State of Alaska to manage, protect, maintain, improve, and extend the fish and wildlife resources of the State of Alaska; and

WHEREAS: The Forest Service is responsible for the fish and wildlife habitat on National Forest lands and some of the fish habitat rehabilitation, enhancement, and development activities of both the Department and the Associations will be carried out on lands under the management jurisdiction of the Forest Service; and

WHEREAS: The qualified Associations have been created under the laws of the State of Alaska for the purpose of enhancing salmon production; and

WHEREAS: It is the mutual desire of the Department, Forest Service, and Associations to work in harmony for the common purpose of enhancing and maintaining the salmon resources of the State in the best interest of the people of Alaska; and

WHEREAS: The public benefits of cooperation between agencies engaged in similar activities in given geographical areas are obvious; and

WHEREAS: The expenditure of money and use of manpower and equipment for the enhancement, rehabilitation, and maintenance of salmon resources by related agencies demands careful coordination; and

WHEREAS: The parties to this Memorandum of Understanding are engaged in salmon enhancement programs and desire to develop a cooperative relationship which will be in the best interest of all parties and produce the greatest public benefit."

A. NOW, THEREFORE, THE DEPARTMENT AGREES:

1. To enhance, rehabilitate, maintain, and regulate salmon populations originating from within the respective geographic areas of the four Associations.
2. To recognize the Forest Service as the agency responsible for fish and wildlife habitat on the National Forests of Alaska.
3. To cooperate with the Forest Service and Associations in the way of mutually funded projects and/or personnel assistance whenever possible.
4. To make available to the Forest Service and Associations technical expertise in the fields of fisheries and engineering as requested whenever possible.
5. To develop strategic salmon enhancement plans through the Regional Planning Team process.
6. To cooperate with the Forest Service and Associations in project planning and development within the limitations of funds and manpower available for that purpose.
7. To make or sanction no introduction of any native or exotic salmon species without an investigation of its effect on other resources and its desirability as a management measure.
8. To provide the Forest Service and Associations with available salmon project evaluation reports and cost analysis when requested.
9. To make available to the Forest Service and Associations plans for salmon stock and habitat rehabilitation, enhancement, and development in advance of execution of the projects.

B. THE FOREST SERVICE AGREES:

1. To recognize the Department as the agency responsible for the management of the fish and wildlife resources of the State of Alaska.
2. To utilize the Regional Planning Team process for the development of strategic salmon enhancement and rehabilitation plans.
3. To cooperate with the Department and Associations in the way of mutually funded projects and/or personnel assistance whenever possible.
4. To make available to the Department and Associations reports of habitat reconnaissance and evaluation of habitat enhancement projects and any other pertinent reports when requested.



17. That specific work projects be written as consecutively numbered supplements to this MOU and that they be signed by the appropriate signatory agencies/organizations.



C. THE ASSOCIATIONS AGREE:

1. To recognize the Department as the agency responsible for the management of the fish and wildlife resources of the State of Alaska.
2. To recognize the Forest Service as the agency responsible for fish and wildlife habitat on the National Forests of Alaska.
3. To cooperate with the Department and Forest Service in the development mutually funded projects and/or personnel assistance whenever possible.
4. To cooperate with the Department and Forest Service in the development of salmon habitat improvements within the limitations of funds available for that purpose.
5. To obtain appropriate approval needed from the Department for all salmon enhancement and rehabilitation projects in accordance with Alaska Statute Title 16 authority invested in the Department.
6. To obtain appropriate approval needed from the Forest Service for all salmon enhancement and rehabilitation projects according to procedures, rules, and regulations of the Forest Service regarding structures, roads, etc. with special emphasis on projects within National Monuments, Wilderness Areas, and other lands of special significance.
7. To provide the Department and Forest Service with project evaluation and other pertinent reports when requested, and as required by law or policy.

D. THE DEPARTMENT, FOREST SERVICE, AND ASSOCIATIONS MUTUALLY AGREE:

1. To cooperate, consistent with respective statutory and regulatory responsibilities, in the enhancement, rehabilitation, and maintenance of the salmon resource.
2. To cooperate in the development and application of plans and projects for the enhancement, rehabilitation, and maintenance of salmon and their habitat in a manner which mutually supports the goals and objectives of the three organizations.
3. To recognize the purposes for which Wilderness areas were established, to design facilities within Wilderness so as to minimize impact on Wilderness values and to plan aquaculture projects so that those involving structures or changes in gene pools are implemented outside of Wilderness areas to the extent that suitable opportunities are available and economically feasible.
4. To exchange technical information, and furnish assistance to each other in the form of materials, personnel, equipment, vessels, and aircraft within legal limits of each organization.

5. That all provisions of this agreement are subject to the laws of the State of Alaska and the United States.
6. That nothing in this agreement shall obligate any party in the expenditure of funds, or for future payments of money in excess of appropriation authorized by law.
7. To meet jointly at least once annually to plan and coordinate matters relating to salmon stock enhancement, rehabilitation, and maintenance.
8. No member of Congress, or Commissioner shall be admitted to any share or part of this agreement, or to any benefit that may arise therefrom.
9. A free exchange of research and assessment of data between agencies is necessary to insure the success of these cooperative studies. Due credit will be given to the agency acquiring the data for its use and/or publication.
10. Results of cooperative studies to be reported in formal publications will be subject to review by each of the participants before publication.
11. Nothing in this Memorandum of Understanding is intended to modify in any manner the present cooperative programs of either agency with States, other public agencies, or educational institutions.
12. That each party agrees that it will be responsible for its own acts and the results thereof and each party shall not be responsible for the acts of the other party; and each party agrees it will assume risks and liability to itself, resulting in any manner under this agreement.
13. That all parties will comply with all applicable laws, regulations, and Executive Orders relating to Equal Employment Opportunity.
14. Nothing herein is intended to conflict with current directives of the signatory agencies/organizations. If there are conflicts with current directives, at the first opportunity this agreement will be changed by amendment or a new agreement will be entered into.
15. Upon termination of this agreement, any equipment purchased for studies initiated in furtherance of this agreement will be returned to the agency of initial purchase.
16. This Memorandum of Understanding shall automatically renew itself annually. However, any of the signatory agencies/organizations may terminate this Memorandum of Understanding by notice in writing 30 days in advance of the date which it proposes to terminate.

ALASKA DEPARTMENT OF FISH AND GAME

Date 10-26-81

By

Doreen Callensworth

Title

Deputy Commissioner

UNITED STATES DEPARTMENT OF AGRICULTURE,  
FOREST SERVICE

Date

9/28/81

By

Michael A. Barton

Title

Dep. Regional Forester

PRINCE WILLIAM SOUND AQUACULTURE CORPORATION

Date

Sept. 9, 1981

By

Christian F. Kallwig

Title

President

COOK INLET AQUACULTURE ASSOCIATION

Date

Sept 9, 1981

By

Floyd Heimbeck

Title

Exec. Dir.

NORTHERN SOUTHEAST REGIONAL AQUACULTURE ASSOCIATION

Date

September 9, 1981

By

John A. Eganis

Title

General Manager

SOUTHERN SOUTHEAST REGIONAL AQUACULTURE ASSOCIATION

Date

September 9, 1981

By

Ronald W. Winkler

Title

Executive Director



